

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION: § EXAMINER: Unknown  
S. Mark Haugland §

SERIAL NO. § GROUP ART UNIT: Unknown

FILED: §

FOR: ENHANCED MEASUREMENT OF §  
AZIMUTHAL DEPENDENCE OF §  
SUBTERRANEAN PARAMETERS §

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

Pursuant to Applicant's duty, under 37 C.F.R. § 1.56, 1.97 and 1.98, to disclose all relevant material, the Applicant lists below the following references believed to be relevant to the subject matter of the above-identified application:

	<u>U.S. Patent No.</u>	<u>Issue Date</u>	<u>Inventor</u>
1.	5,023,450	06-11-1991	Gold
2.	5,045,795	09-03-1991	Gianzero et al.
3.	5,339,036	08-16-1994	Clark et al.
4.	5,357,797	10-25-1994	Maki, Jr. et al.
5.	5,422,480	06-06-1995	Schultz
6.	5,486,695	01-23-1996	Schultz et al.
7.	5,473,158	12-05-1995	Holenka et al.
8.	5,513,528	05-07-1996	Holenka et al.
9.	5,591,967	06-07-1997	Moake

Docket No. PAT035US PATENT

10.	5,675,488	10-07-1997	McElhinney
11.	5,899,958	05-04-1999	Dowell et al.
12.	5,966,013	10-12-1999	Hagiwara
13.	6,131,694	10-17-2000	Robbins et al.
14.	6,307,199-B1	10-23-2001	Edwards et al.
15.	6,321,456-B1	11-27-2001	McElhinney
16.	6,584,837-B2	07-01-2003	Kurkoski
17.	6,619,395-B2	09-16-2003	Sross

FOREIGN PATENTS

	<u>Patent No.</u>	<u>Publication Date</u>	<u>Patentee</u>
1.	EP 0793000	04-10-2001	Halliburton Energy Services
2.	UK 2301438	04-12-1996	Halliburton Company

OTHER DOCUMENTS

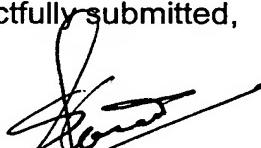
1. OPPENHEIM, A. V. and SCHAFER, R.W., Digital Signal Processing, Prentice-Hall, 1975, pp. 239 – 250 and pp. 548 – 554.

Applicant respectfully submits that the invention in the above-identified application is patentably distinguishable over the cited references known to Applicant and disclosed in the above Information Disclosure Statement.

This Information Disclosure Statement is being filed **within** three months of the filing date of this national application or the date of entry of the national stage as set forth in § 1.491 in an international application.

Respectfully submitted,

Date: April 16, 2004

  
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Substitute for form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>			
				Application Number			
				Filing Date			
				First Named Inventor		S. Mark Haugland	
				Art Unit			
				Examiner Name			
Sheet	1	of	1	Attorney Docket Number	PAT035US		
<b>U.S. PATENT DOCUMENTS</b>							
Examiner Initials*	Cite No.	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
		Number-Kind Code (if known)					
AA	US-	5,023,450		06-11-1991	Gold		
AB	US-	5,045,795		09-03-1991	Gianzero et al.		
AC	US-	5,339,036		08-16-1994	Clark et al.		
AD	US-	5,357,797		10-25-1994	Maki, Jr. et al.		
AE	US-	5,422,480		06-06-1995	Schultz		
AF	US-	5,486,695		01-23-1996	Schultz et al.		
AG	US-	5,473,158		12-05-1995	Holenka et al.		
AH	US-	5,513,528		05-07-1996	Holenka et al.		
AI	US-	5,591,967		06-07-1997	Moake		
AJ	US-	5,675,488		10-07-1997	McElhinney		
AK	US-	5,899,958		05-04-1999	Dowell et al.		
AL	US-	5,966,013		10-12-1999	Hagiwara		
AM	US-	6,131,694		10-17-2000	Robbins et al.		
AN	US-	6,307,199-B1		10-23-2001	Edwards et al.		
AO	US-	6,321,456-B1		11-27-2001	McElhinney		
AP	US-	6,584,837-B2		07-01-2003	Kurkoski		
AQ	US-	6,619,395-B2		09-16-2003	Spross		
	US-						
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<b>FOREIGN PATENT DOCUMENTS</b>							
Examiner Initials*	Cite No.	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>1</sup>
		Country Code-Number-Kind Code					
AR	EP 0793000			04-10-2001	Halliburton Energy Services		
AS	UK 2301438			04-12-1996	Halliburton Company		
<b>OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS</b>							
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published					T <sup>1</sup>
AT	OPPENHEIM, A. V. and SCHAFER, R.W., Digital Signal Processing, Prentice-Hall, 1975, pp. pp. 239 – 250 and pp. 548 – 554.						
Examiner Signature		Date Considered					
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication with applicant. <sup>1</sup> Applicant is to place a check mark here if English language Translation is attached.							